DOCUMENT RESUME

ED 242 780 TM 840 198

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TITLE An Investigation of Student Performance in Noncognitive Domain.
PUB DATE Apr 84
NOTE 23p.; Paper presented at the Annual Meeting of the American Educational Research Association (68th, New Orleans, LA, April 23-27, 1984); Appendix A contains small print.
PUB TYPE Speeches/Conference Papers (150) -- Reports - Research/Technical (143)

EDRS PRICE MF01/PC01 Plus Postage.
DESCRIPTORS *Affective Objectives; Elementary Secondary Education; Intervention; Needs Assessment; Pretests Posttests; *Program Evaluation; *Program Implementation; *Student Evaluation
IDENTIFIERS Comprehensive Tests of Basic Skills; *Education Consolidation Improvement Act Chapter 1; Metropolitan Achievement Tests; Needs Assessment Rating Scale; Wilcoxon Matched Pairs Signed Ranks Test

ABSTRACT

This paper focuses generally on student non-cognitive improvement before and after a Newark Chapter 1 program implementation; and specifically, on demonstrated growth in the non-cognitive areas over the year from pre-assessment to post-assessment as part of the Chapter 1 intervention. The evaluation was conducted, based on classification in terms of project areas, status, and grade levels. The evaluation model was a one-group pre- and posttest design. A non-parametric test, the Wilcoxon Signed-Ranked Test, was used to determine significant difference between two related samples. The results showed that the Chapter 1 participants demonstrated significant growth in almost all categories in non-cognitive domain. Independent teacher ratings of non-cognitive objectives; additional input from other raters, e.g., teachers, teacher aids, counselors, etc.; and, student participation in the rating process are recommended to improve non-cognitive evaluation. (Author/PN)

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ED242780

An Investigation of Student Performance in Noncognitive Domain

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Presented at the Annual Meeting of the American Educational Research Association

New Orleans, Louisiana

April 1984

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An Investigation of Student Performance in Non-cognitive Domain

This study was to evaluate student non-cognitive gains over a year from preassessment to post-assessment as part of the Chapter I intervention. The evaluation was conducted based on a classification system in terms of project areas, status, and grade levels. The evaluation model was one-group pre- and posttest design. A non-parametric test, the Wilcoxon Signed -Ranked Test, was used to determine significant difference between two related samples. The results showed that the Chapter I participants demonstrated significant growth in almost all categories in non-cognitive domain. Some recommendations in improving the non-cognitive evaluations were presented.

An Investigation of Student Performance in Noncognitive Domain

Introduction

A comprehensive basic skills improvement program should consist of both cognitive and noncognitive domains of educational objectives to address the special needs of students. While cognitive domain of the Chapter I Program may be more emphasized in the instructional program, it should be recognized that the needs pertaining to both domains are not independent. A lack of noncognitive development on the student not only neglects one important aspect of learning experiences, but also contributes to the problem of cognitive development. For example, failure to concentrate in reading, one problem area of noncognitive domain - affective, may hinder the student's ability to comprehend (cognitive domain). Or if a student has an impairment in one or more psychomotor activities such as participating in classroom discussions, completing assigned homework and/or listening attentively, he may encounter difficulties in achieving cognitive objectives. In order to maximize his ability to grow and profit from learning experiences, the state mandates that both domains are considered in determining the special needs of each Chapter I participant (New Jersey State Department of Education, 1981). Recognizing the interaction of noncognitive domain with cognitive domain in the development of student basic skills, the Newark school district adopted a policy that all noncognitive areas be taught and evaluated in conjunction with individual project areas: Communication, Computational Skills, Project for English Proficiency (PEP), and Special Education. The purpose of this paper is focused on student noncognitive improvement before and after the program implementation. More specifically, this study is to determine whether the Chapter I participants demonstrated significant growth in the noncognitive areas over the year from pre-assessment to post-assessment as part of the

Chapter I intervention.

Objectives of Noncognitive Domain

According to the Basic Skills Improvement Program developed by the New Jersey State Department of Education (1981), four areas constituted the taxonomy of noncognitive domain: affective, social, psychomotor and health. The affective area involved in the Newark Chapter I noncognitive domain consisted of a major category objective which defined a set of specific behaviors appropriate to a particular grade level. For example, in the communication area, the affective domain was characterized by several objectives based on the taxonomy of educational objectives. Receiving, the simplest category of the affective domain, was defined by three specific objectives used for grades 1-3: listens attentively, shows awareness, and attends to class activities. For grades 4-6, the area was defined in terms of concentration which encompassed the following behaviors: the student maintains interest, directs attention, and follows direction. In grades 7-9, the major category objectives was identified as responding, that is, the student completes homework, follows school rules, participates in class, and works with others. The highest category objective used for grades 9-12 in the affective domain was characterization under which the following behavioral objectives were subsumed: behavior reflects values, and the student exhibits respect for self and others and displays self discipline. In special education, emphasis of the affective domain was on valuing which bears special meaning to the students in this particular group. The specific behaviors observed were: the student places worth on trying, realizes value of event and initiates efforts to deal with handicap.

Without sensitiveness to the student's feelings about himself and others, the teacher may find that these problems will reduce his overall ability to

learn and to relate effectively with others. The social domain in the program was defined in terms of student/school relationship for all grade levels. The specific behaviors underlying this major category varied from grade cluster to grade cluster. For example, in grades 1-3, the specific objectives were specified in terms of student relationship in social area. that is, the student plays with other students, cooperates with teacher and controls temper and impulses. For grades 9-12, the social area was defined by student/school relationship. The behaviors observed included: cooperates with teachers and administrators, shares with students, competes fairly, and vocational interests.

The factors involved in the psychomotor domain generally include those mental, physical and emotional skills, behaviors which dictate how ready a child is to learn. The specific behavioral objectives in the program were identified for each grade cluster in accordance with the student's maturation, physically and mentally. These objectives were used to facilitate the development of particular cognitive areas at particular grade levels. For example, for grades 1-3, the major objective was defined in terms of imitation. The specific behaviors involved in this objective were: observes action, replicates with accuracy, and neuro-muscular coordination. Behaviors specific to grades 7-9 were identified in the category of articulation: coordinates series of actions, accuracy, and control of action and speed.

All major categories in the health domain were identified in terms of physical condition for all grades. However, factors measured varied from grade cluster to grade cluster. This domain involved factors of such physical fitness and psychological balance as weight, shape of body, illness and recovery, general health, maturation, anxiety and stress level, etc. A description of each category by grade level is shown in Appendix A.

Although the noncognitive areas were defined by a set of performance objectives for different grade levels, no major structured instructions were designed to assess the attainment of these objectives. Both cognitive domain and noncognitive domain were incorporated in class to improve overall ability to learn and the noncognitive factors.

Method

Student Selection

To determine specific educational needs of the Chapter I participants, a needs assessment was conducted. First, standardized tests, the Metropolitan Achievement Test (MAT) and the Comprehensive Tests of Basic Skills (CTBS) were administered to the students to identify students in need of services in the Chapter I Program cognitive domain. Based on individual needs in cognitive areas, the students were assigned to specific project areas. The participants were then further administered the Needs Assessment Rating Scale to determine their noncognitive needs in the project area(s) for which they have been selected. Any areas of the noncognitive domain that my lead to the students' inability to function successfully in cognitive project areas were identified for each student to plan program activities.

Evaluation Instrument

The instrument used for measuring the noncognitive areas in the Newark Chapter I Program was the rating form with a five-point Likert type of scale. Numerical values were assigned to each of five categories: 1=very poor, 2=poor, 3=good, 4=very good, and 5=excellent. Teachers did the ratings by placing a check in an appropriate category according to the following criteria:

1. Very poor: that degree of development which is noticeably less than that found in children of comparable chronological age and school experience.

2. Poor: that degree of development which is less than that found in children of comparable chronological age and school experience.

3. Good: that degree of development which is usually found in children of comparable chronological age and school experience.

4. Very Good: that degree of development which exceeds that usually found in children of comparable age and school experience.

5. Excellent: that degree of development which significantly exceeds that found in children of comparable chronological age and school experience.

The operational objectives for each domain varied in accordance with grade level and project area.

The instrument was administered to the Chapter I participants twice during each academic year. Teacher ratings of the Chapter I participant performance in the noncognitive domain were expected to show a significant growth before and after the program intervention. Pre-assessment was conducted during the period of October-November after the cognitive needs assessment had been completed. The post-assessment was completed in May 1983. Gains over the year from pre-assessment to post-assessment were tested to determine statistical significance of the difference between these two data points by grade and by project areas.

Evaluation Design

The main task for evaluating the Chapter I noncognitive domain was to assess students' noncognitive growth as part of the program intervention. The evaluation model was a one-group pretest and posttest design. As indicated before, the data collected were derived from the needs assessment rating scale which is in the form of ordinal scale. The teachers did the ratings on the same subjects before and after the program intervention. Since the instrument used was ordinal in nature and repeated measures were taken on the same sample, a non-parametric statistical test, the Wilcoxon signed rank test, was used to determine whether these two samples differ significantly from each

other when the samples were related.

Due to heterogeneity of the Chapter I population and variation within various programs, it was decided that noncognitive gains between pre-assessment and post-assessment would be tested separately in terms of the following variables: school status (Public and Nonpublic), project area (Communication, Computational Skills, Program for English Proficiency, and Special Education), and grade level. Within each project area, gains for all noncognitive areas and total score were tested across grade levels to determine whether there was any identifiable pattern in students' noncognitive performance.

Sampling

A combination of stratified random sampling and systematic random sampling was adopted to draw a sample of 1739 from the Chapter I participants. This sampling method is to insure that each category within the program is proportionately represented in the sample. The population of the Chapter I students was first subdivided into such strata as project areas, status, grade levels, and a predetermined sampling fraction was set to systematically select a sample of students into each substratum. The sample fraction used varied from project areas and grade levels since populations within each stratum were different.

Findings

An inspection of Table 1 reveals that the Chapter I participants demonstrated significant gains in almost all strata (the Wilcoxon z values were tested for statistical significance at the .01 level). Further examination of this table indicates that there were some variations of gains among categories within each stratum. Thus, the major findings for strata evaluation will be presented below.

Project Area - As with last year's trend in the students' noncognitive performance, the Chapter I students experienced significant gains for overall noncognitive domain in all four project areas: Language Experience, Computational Skills, Program for English Proficiency, and Special Education. Both Language Experience and Computational Skills had similar mean gains while PEP had the greatest gains of all. The mean gain values for all four project areas are shown in Table 1.

Status - Both public and nonpublic schools registered significant gains in the noncognitive domain between pre-assessment and post-assessment in the 1982-1983 school year. However, public schools exhibited greater noncognitive gains than nonpublic schools.

Table 1

Summary Wilcoxon Statistics for the Significance of Noncognitive Gains for the Newark School District

Stratum	N	Wilcoxon z
I. Project Area		
Language Experience	645	8.155*
Computational Skills	638	8.648*
Program for English Proficiency	278	6.625*
Special Education	178	3.238*
II. Status		
Public School	1606	13.601*
Nonpublic School	133	3.157*
III. Grade Level		
1	222	7.404*
2	145	5.747*
3	189	4.803*
4	169	4.579*
5	187	5.288*
6	197	5.100*
7	124	1.603
8	123	4.104*
9	100	0.283
10	48	1.842
11	46	2.410*
12	11	0.254

Grade Level - A breakdown analysis by grade level confirms the conclusions that elementary grades (grades 1-6) made greater gains in noncognitive domain than the upper grade levels (grades 7-12). Grades 1 through 6 all exhibited significant improvement in noncognitive performance from pre-assessment to post-assessment while upper grades with the exception of grade 8 and 11 failed to obtain significant growth.

Findings of Grade Cluster by Project Area

While an evaluation of the noncognitive domain overall may be important to determine success of the Chapter I Noncognitive Program, an analysis of student gains in each of the four noncognitive areas by project area and grade cluster should shed more light on the effectiveness of the program. Four grade clusters were analyzed. Each one encompassed three consecutive grade levels.

A comparative analysis of students' noncognitive performance across grade clusters reveals a similar pattern between Language Experience and Computational Skills. Tables 2 and 3 reports summary statistics for the four noncognitive areas by grade cluster for the two project areas. It was found that the Chapter I students from grade clusters 1 and 2 obtained significant increase in each of the noncognitive areas in both project areas. In grade cluster 1, total gain scores for the Affective and Psychomotor areas were larger than the total gain scores for Social and Health. For grade cluster 2, mean gain scores for all four noncognitive areas were quite similar. No significant gains were found in any of the noncognitive areas for grade clusters 3 and 4.

An inspection of Table 4 shows that the PEP students from all grade clusters made a significant increase in the noncognitive areas with the exception of Social and Health in cluster 2.

Table 2

Summary Statistics of Noncognitive Domain
for Language Experiences (by Grade Cluster)

Grade Group	Noncognitive Domain	N	Pretest $\bar{X}$	Pretest SD	Posttest $\bar{X}$	Posttest SD	$\bar{X}$ Gain	Wilcoxon z Value
1	Affective	202	2.18	.77	2.63	.81	.45	6.020*
	Social	202	2.58	.74	2.84	.82	.26	3.705*
	Psychomotor	202	2.42	.74	2.84	.69	.42	6.0341*
	Health	202	2.83	.71	3.04	.62	.21	3.861*
2	Affective	212	2.37	.78	2.60	.85	.23	3.451*
	Social	212	2.65	.77	2.86	.83	.21	3.040*
	Psychomotor	212	2.71	.67	2.99	.64	.28	4.585*
	Health	212	2.86	.56	3.07	.51	.21	4.343*
3	Affective	144	2.72	.74	2.81	1.01	.09	1.060
	Social	144	2.92	.67	2.99	.92	.07	0.971
	Psychomotor	144	2.86	.68	2.92	.82	.06	0.931
	Health	144	3.03	.64	3.09	.76	.06	0.848
4	Affective	87	3.20	.78	3.34	.91	.14	1.385
	Social	87	3.21	.79	3.39	.87	.18	1.821
	Psychomotor	87	3.15	.69	3.34	.83	.19	2.191
	Health	87	3.20	.74	3.39	.78	.19	1.972

Table 3

Summary Statistics of Noncognitive Domain
for Computational Skills (by Grade Cluster)

Grade Group	Noncognitive Domain	N	Pretest $\bar{X}$	Pretest SD	Posttest $\bar{X}$	Posttest SD	$\bar{X}$ Gain	Wilcoxon z Value
1	Affective	223	2.28	.74	2.69	.78	.41	5.974*
	Social	223	2.60	.75	2.90	.66	.30	4.747*
	Psychomotor	223	2.48	.70	2.93	.66	.45	6.824*
	Health	223	2.85	.58	3.10	.58	.25	4.470*
2	Affective	256	2.39	.76	2.70	.87	.31	4.996*
	Social	256	2.68	.76	2.91	.78	.23	4.116*
	Psychomotor	256	2.72	.73	2.97	.74	.25	4.374*
	Health	256	2.93	.61	3.11	.61	.18	4.256*
3	Affective	141	2.78	.84	2.80	.98	.02	0.284
	Social	141	2.68	.76	2.94	.97	.26	1.252
	Psychomotor	141	2.96	.68	3.12	.78	.16	2.216
	Health	141	3.21	.62	3.34	.74	.13	1.863
4	Affective	18	2.83	.79	2.72	.89	-.11	0.734
	Social	18	2.94	1.00	2.94	1.00	.00	0.000
	Psychomotor	18	3.11	.68	3.33	.69	.22	1.826
	Health	18	3.17	1.04	3.28	.96	.11	0.734

Table 4

Summary Statistics of Noncognitive Domain
for Program for English Proficiency (by Grade Cluster)

Grade Group	Noncognitive Domain	N	Pretest $\bar{x}$	Pretest SD	Posttest $\bar{x}$	Posttest SD	$\bar{x}$ Gain	Wilcoxon z Value
1	Affective	131	2.47	.81	2.78	1.05	.31	3.127*
	Social	131	1.73	.74	3.05	1.10	.32	3.469*
	Psychomotor	131	2.76	.72	3.07	1.07	.31	3.334*
	Health	131	2.98	.67	3.32	1.08	.34	3.562*
2	Affective	85	2.51	.92	2.87	.97	.36	3.680*
	Social	85	2.85	.75	3.06	.86	.21	1.999
	Psychomotor	85	2.92	.58	3.13	.59	.21	2.798*
	Health	85	3.11	.49	3.21	.62	.10	1.435
3	Affective	62	2.73	.93	3.16	.96	.43	3.359*
	Social	62	2.95	.76	3.31	.82	.36	2.915*
	Psychomotor	62	3.10	.59	3.37	.77	.27	2.332*
	Health	62	3.11	.66	3.55	.67	.44	3.366*

Findings of Project Areas by Grade Level

Table 5 displays the mean gain scores or the Wilcoxon z values of project areas by grade level. A z value of greater than or equal to 2.33 indicates that there was a significant difference between pre-assessment and post-assessment for a particular noncognitive area. Since students in Special Education were not graded, no mean gain scores for this project area are found in this table.

Language Experience - In the Language Experience area, most grades (grades 1-5) in the elementary level achieved significant improvement in the overall noncognitive domain, while grade 6 failed to show significant gains. In the case of upper grade level (grades 7-12), however, the pattern was just opposite. All grade levels failed to register significant gains with the exception of grade 11.

A further analysis of the project data by noncognitive areas reveals that more gains occurred in grades 1 and 4 (which demonstrated significant growth in all four areas) than in grades 2, 3, and 5 (which obtained significant gains in one or two areas). All noncognitive areas in the upper grade levels (grades 7-12) did not have significant gains except the Social area at grade 11. The detailed mean gain scores for all grades are shown in Table 5.

Computational Skills - As with the Language Experience Area, there was a significant contrast between elementary grade levels and upper grade levels in the noncognitive domain. All elementary levels (grades 1-6) experienced significant improvement in the overall noncognitive domain, but none of the upper grade levels (grades 7-11) showed any significant improvement in overall performance. The greatest gains appeared at grades 1, 3, 5, and 6. Grade 7 showed the least gains. No data is reported for grade 12.

When analysis is focused on the noncognitive areas across grade levels,

TABLE 5

Summary Statistics For Mean Non-Cognitive Gains

By Instructional Area and Grade Level - Critical Z = 2.33

	Language Experience						Computational Skills						Program for English Proficiency					
Level	N	Affective	Social	Psychomotor	Health	Z	N	Affective	Social	Psychomotor	Health	Z	N	Affective	Social	Psychomotor	Health	Z
1	88	.39*	.31*	.47*	.19*	4.27*	48	.47	.38*	.50*	.27	5.22*	36	.35*	.61*	.47*	.39	3.13*
2	53	.51*	.24	.24	.28*	3.32*	62	.23	.23	.32	.20	3.17*	30	.57*	.50*	.42*	.64*	3.55*
3	61	.47	.18	.53*	.20	3.55*	63	.51	.25	.52*	.27	4.17*	65	.06	.08	.14	.17	.85
4	61	.43*	.46*	.39*	.23*	4.14*	81	.25	.22	.24	.16	2.58*	27	.26	.08	.00	.04	.68
5	69	.17	.12	.34*	.31*	3.18*	91	.29*	.26*	.19	.24*	3.56*	27	.34	.04	.29*	.15	2.32
6	82	.13	.10	.13	.11	1.86	84	.38*	.22	.34*	.16	3.95*	31	.48*	.48*	.32	.19	3.36*
7	50	.04	-.10	-.10	-.14	1.59	47	.08	.09	.10	.07	.86	27	.29	.33	.41	.45	2.24
8	34	.32	.26	.33	.32	2.31	54	.17	-.02	.20	.24	1.55	35	.54*	.37*	.17	.43*	3.74*
9	60	-.02	.10	.05	.08	.68	40	-.25	-.45*	.15	.05	1.61						
10	36	.11	.17	.14	.14	.40	12	-.08	.25	.25	.16	1.19						
11	40	.30	.32*	.30	.25	2.56*	6	-.17	-.50	.16	.00	.80						
12	11	-.27	-.27	.00	.18	.25	0	.										

NOTE: *Wilcoxon Z - value significant at the .01 level

it is found that grade 1 achieved significant gains in all four areas. The remaining grades in the elementary level obtained significant gains in some areas. None of the upper levels showed any significant improvement in the noncognitive areas except for grades 9 in the Social area.

Program for English Proficiency - Noncognitive growth for the PEP students fluctuated from grade to grade. Significant gains were achieved at grades 1, 2, 6 and 8, while grades 3 and 4 appeared to have the least amounts of gains overall.

The mean gain values for the various noncognitive areas for all grade levels are shown in Table 5. It is evident from examining the data that noncognitive growth was relatively consistent in grades 1 and 2 in which at least three of the four areas achieved significant improvement. Grades 6 and 8 also demonstrated significant growth with two or more areas scoring significant increases. None of the noncognitive gains were statistically significant in grades 3 and 4.

Conclusions and Recommendations

From analysis of noncognitive data for the Newark Chapter I sample as a group, it was evident that the students did as a result of participation in the nine month Chapter I Program show significant improvement overall and in four separate noncognitive areas as measured by the Newark Chapter I Noncognitive Needs Assessment Rating Scale. Thus, the objective in the improvement of the student noncognitive behaviors in the 1982-1983 school year was achieved.

To further evaluate the effectiveness of the program, a classification system by category was developed to determine the achievement of noncognitive objectives in various subcategories, according to project areas, status, grade cluster, and grade level. It was concluded that the objective of noncognitive development was attained in all project areas and public and nonpublic

schools, but was only partially achieved by grade levels. The exceptions to the achievement of noncognitive development occurred at several upper grade levels (grades 7, 9, 10 and 12).

When attention is focused on a detailed picture of noncognitive performance by project areas and grade level, it is apparent that variations of gains in each noncognitive area and the overall noncognitive domain (total score category) remained a somewhat consistent pattern. In the areas of Language Experience and Computational Skills, for example, the objective of overall noncognitive development was attained at the elementary level, but in general not at the secondary level. A lack of noncognitive improvement presumably had an adverse effect on cognitive development. Careful examination of noncognitive behaviors on the rating scale indicates that there is a switch in the levels of the objectives, from merely Receiving and Concentration to more active Responding and Characterization from grade cluster to grade cluster. Since there is a gap in the noncognitive objectives between the elementary level and the secondary level, provisions for helping upper grade students in the development of higher level of noncognitive skills are needed. It is suggested that a structured noncognitive program which represents important noncognitive objectives in concert with the Newark objectives be established for the secondary grades (7-12). The specific objectives of the current noncognitive domain should be reexamined.

For the effective ratings of the instrument used, specific objectives should be clearly defined and rated separately. In the current rating scale, each noncognitive area was defined by several objectives. Descriptions of each objective were not quite clearly stated in behavioral terms, and objectives were not rated separately. Thus, it is not possible to evaluate individual noncognitive objectives which should have some effects on

individual cognitive objectives in particular. Where it is not feasible to use a descriptive rating scale, a separate sheet of instructions can be used to provide the desired behavioral descriptions. This practice will allow teachers and administrators to conduct objective analysis to address specific needs of students (Gronlund, 1981).

A number of factors which may contribute to lower validity of the instrument should be taken into account, and special efforts on the part of the teachers should be made to counteract their influences. In making subjective judgement of noncognitive achievement, there is a tendency for a teacher to favor a certain position on the scale. Some teachers tended to use either the high end or the low end of a scale. Another error was also shown to rate students average, as was done by some careless teachers. The results of the evaluation could be of limited usefulness because a high or low rating may reflect only the personal outlook of a rater instead of the true characteristics of the student rated.

Still another problem seemed to have occurred because a teacher could be influenced by his/her general impression on other characteristics such as achievement of student cognitive domain and other traits. If a teacher has a favorable attitude toward a particular student who is strong in some other traits other than a noncognitive objective of interest, there is a tendency for the teacher to rate the student higher based on irrelevant traits rather than on the particular objective. This problem would cause the student to receive similar ratings on all noncognitive objectives. The effect might obscure a student's strengths and weaknesses on all noncognitive objectives, thus, limiting usefulness of the evaluation. Thus, it is imperative to advise teachers to make an effort to conduct independent ratings of noncognitive objectives. It is recommended that additional ratings or input be elicited

from other raters such as other teachers, teacher aids, and counselors who have opportunities to observe the student in a variety of situations.

Student participation in the rating process may be useful, especially in the upper grade levels. From instructional point of view, it is frequently useful to have a student do a self rating and then compare this rating with that of his teacher. If a conference is set to discuss the ratings by the student and the teacher, it should help both of them understand student's progress and achievement in the areas evaluated. The student could better recognize his weaknesses and strengths and thus remediate deficiencies identified. The teacher can gain insight into student development in both noncognitive and cognitive domains. Utilization of noncognitive evaluation should not be limited to accountability, but be for the improvement of noncognitive program.

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APPENDIX A

NON-COGNITIVE NEEDS ASSESSMENT RATING FORMS (1982-1983)

AREA/INDICATOR GRADES 1-3	AREA/INDICATOR GRADES 4-6
Affective • RECEIVING eg. (Listens attentively; shows awareness; attends to class activities)	Affective • CONCENTRATION eg. (Maintains interest; directs attention; follows direction)
Social • STUDENT RELATIONSHIP eg. (Plays with other students; cooperates with teacher; controls temper and impulses)	Social • STUDENT RELATIONSHIP eg. (Respects others; accepts authority; works with groups and other individuals)
Psychomotor • IMITATION eg. (Observes action; replicates with accuracy; neuro-muscular coordination)	Psychomotor • MANIPULATION eg. (Uses pencils; draws lines; handles books; rulers, and material)
Health • PHYSICAL CONDITION eg. (Weight, size and shape of body; nutrition; frequency of illness)	Health • PHYSICAL CONDITION eg. (General health; illness and recovery; weight; and nutrition habits)
AREA/INDICATOR GRADES 7-9	**AREA/INDICATOR GRADES 10-12**
Affective • RESPONDING eg. (Completes homework; follows school rules; participates in class; works with others)	Affective • CHARACTERIZATION eg. (Behavior reflects values; exhibits respect for self and others; displays self discipline)
Social • STUDENT RELATIONSHIP eg. (Respect for peers, teachers and others; cooperates with group members; social behavior)	Social • STUDENT/SCHOOL RELATIONSHIP eg. (Cooperates with teachers and administrators; shares with students; competes fairly; vocational interests)
Psychomotor • ARTICULATION eg. (Coordinates series of actions; accuracy; control of action and speed)	Psychomotor • NATURALIZATION eg. (Writes smoothly and legibly; draws reasonable reproductions; performs acts naturally and without much thinking)
Health • PHYSICAL CONDITION eg. (General health; weight; maturation; frequency of illness; dental problem)	Health • PHYSICAL CONDITION eg. (Maturation; anxiety; illness; nutrition; stress level)
AREA/INDICATOR UNGRADED	**AREA/INDICATOR SPECIAL EDUCATION**
Affective • RESPONDING eg. (Completes assignments; follows rules; participates in program; works effectively)	Affective • VALUING eg. (Places worth on trying; realizes value of event; initiates efforts to deal with handicap)
Social • HUMAN RELATIONSHIP eg. (Incidence of antisocial behavior; cooperates with others; accepts directions; vocational interests)	Social • STUDENT RELATIONSHIP eg. (Works with other students; adjusts to handicap; controls anxiety and stress)
Psychomotor • NATURALIZATION eg. (Writes smoothly; draws reasonable reproductions; performs acts naturally without much thinking)	Psychomotor • IMITATION eg. (Follows directions; attempts to replicate; drills to achieve skills; acquires some measure of skill attempted)
Health • PHYSICAL CONDITION eg. (Growth/development; nutrition; drug/alcohol use; anxiety and stress levels)	Health • PHYSICAL CONDITION eg. (Growth; nutrition; energy levels; exercise program participation)

SCALE VALUES: 1= very good 2= poor 3= good 4= very good 5= excellent